CIVIL ENGINEER
CONTINGENCY TRAINING
MOODY AIR FORCE BASE, GEORGIA

ENVIRONMENTAL ASSESSMENT

March 2007

Report Documentation Page

Form Approved
OMB No. 0704-0188

1. REPORT DATE	2. REPORT TYPE	3. DATES COVERED
MAR 2007		**00-00-2007 to 00-00-2007**

4. TITLE AND SUBTITLE	5a. CONTRACT NUMBER
Civil Engineer Contingency Training Moody Air Force Base, Georgia Environmental Assessment	5b. GRANT NUMBER
	5c. PROGRAM ELEMENT NUMBER
6. AUTHOR(S)	5d. PROJECT NUMBER
	5e. TASK NUMBER
	5f. WORK UNIT NUMBER
7. PERFORMING ORGANIZATION NAME(S) AND ADDRESS(ES) **23rd Wing,Moody AFB,GA,31699**	8. PERFORMING ORGANIZATION REPORT NUMBER
9. SPONSORING/MONITORING AGENCY NAME(S) AND ADDRESS(ES)	10. SPONSOR/MONITOR'S ACRONYM(S)
	11. SPONSOR/MONITOR'S REPORT NUMBER(S)

12. DISTRIBUTION/AVAILABILITY STATEMENT
Approved for public release; distribution unlimited

13. SUPPLEMENTARY NOTES

14. ABSTRACT

15. SUBJECT TERMS

16. SECURITY CLASSIFICATION OF:			17. LIMITATION OF ABSTRACT	18. NUMBER OF PAGES	19a. NAME OF RESPONSIBLE PERSON
a. REPORT **unclassified**	b. ABSTRACT **unclassified**	c. THIS PAGE **unclassified**	**Same as Report (SAR)**	**39**	

CIVIL ENGINEER CONTINGENCY TRAINING
MOODY AIR FORCE BASE, GEORGIA

FINDING OF NO SIGNIFICANT IMPACT

1.0 DESCRIPTION OF THE PROPOSED ACTION AND ALTERNATIVES

1.1 Proposed Action

Moody Air Force Base (AFB) proposes to establish a dedicated training area for USAF contingency engineer training as required by Air Force Instruction (AFI) 10-210. The objective of training at this site would be to develop and maintain a highly skilled, agile military combat support Civil Engineer force capable of rapid response in support of contingency operations throughout the global theater. In addition to training in field deployment, construction, and repair methods typical of Civil Engineer units, this training would also include combat skills proficiency, including personal/work party security, convoy operations, small unit tactics, land navigation, military vehicle operator training, construction of defensive fighting positions, and other similar combat skills.

To accomplish this training, a Field Training Exercise/Bivouac (FTX) site would be constructed by removing all vegetation and stumps from the proposed site. The site would be graded and smoothed, and an interior gravel road would be constructed bisecting the area north to south. Concrete slabs would be constructed to serve as the foundation for tents and other structures and equipment that would occur on site. Approximately 40,300 square feet of concrete in various configurations would be constructed on the site.

During training events, unit personnel would convoy to the FTX site and set up a bivouac site, consisting of small shelter systems (12-person tents) that would serve as temporary housing for approximately 60 troops during each training event. Combat skill and force protection training would include the use of M16 weapons with 5.56mm blank ammunition and ground burst simulator (GBS) during convoy and force protection training. Combat skill and force protection training would include foot movements of squad-sized forces throughout the Camp Patten area while using blanks and GBS. As part of the proposed training, a base defense operations center would be established at the bivouac site, with hasty fighting positions constructed around the perimeter.

1.2 Alternatives

The three alternatives to the proposed action are: 1) to construct the Civil Engineer Contingency Training FTX site with permanent structures; 2) to conduct Civil Engineer Contingency Training at the Silver Flag Exercise Site located near Tyndall AFB, FL ; and, 3) the no action alternative.

2.0 SUMMARY OF ENVIRONMENTAL IMPACTS

The EA analyzed the potential environmental effects of implementing the proposed action and alternative on the following resources: cultural resources; hazardous materials, pollution, and contaminants; physical resources, vegetation resources, water resources, and wildlife resources. The proposed action and alternatives would result in a slight disturbance to vegetation and wildlife resources, but these were not considered significant because of the limited duration of effect and the small size of the proposed FTX area. None of the other resources were deemed likely to be affected by the proposed action or alternatives. Therefore, there would not be any significant impacts to the environment as a result of implementation of the proposed action or any of the evaluated alternatives. Also, there were no significant cumulative effects noted that would occur as a result of implementation of the proposed action or any of the evaluated alternatives.

3.0 CONCLUSION:

The attached EA was prepared and evaluated pursuant to the National Environmental Policy Act (Public Law 91-190, 42 U.S.C. 4321 *et seq.*) and according to 32 Code of Federal Regulations 989, *The Environmental Impact Analysis Process.* Based on the findings of the environmental assessment, no significant impact is anticipated from implementation of the proposed action. I have concluded that the proposed project titled, "Civil Engineer Contingency Training" does not constitute a "major Federal action significantly affecting the quality of the human environment" when considered individually or cumulatively in the context of the referenced act, including both direct and indirect impacts. Therefore, issuance of a Finding of No Significant Impact is warranted, and an environmental impact statement is not required. Pursuant to Executive Order (EO) 11988 and EO 11990, the authority delegated in Secretary of the Air Force Order 791.1, and taking the above information into account, I find there is no practicable alternative to this action.

18 Apr 07

KENNETH E. TODOROV, Colonel, USAF — **Date**
Vice Commander

CIVIL ENGINEER CONTINGENCY TRAINING
Moody Air Force Base, Georgia

Environmental Assessment

Table of Contents

Page

List of Figures

List of Tables

CIVIL ENGINEER CONTINGENCY TRAINING
MOODY AIR FORCE BASE, GEORGIA

ENVIRONMENTAL ASSESSMENT

1.0 PURPOSE OF AND NEED FOR THE PROPOSED ACTION

1.1 Background, Purpose, and Need for the Proposed Action

Moody Air Force Base (AFB) proposes to establish a dedicated training area for USAF contingency engineer training as required by Air Force Instruction (AFI) 10-210. The objective of training at this site would be to develop and maintain a highly skilled, agile military combat support Civil Engineer force capable of rapid response in support of contingency operations throughout the global theater. In addition to training in field deployment, construction, and repair methods typical of Civil Engineer units, this training would also include combat skills proficiency, including personal/work party security, convoy operations, small unit tactics, land navigation, military vehicle operator training, construction of defensive fighting positions, and other similar combat skills.

1.2 Location of Proposed Action

Moody AFB is located in south-central Georgia about 10 miles northeast of Valdosta on 11,457 acres of federally owned land in Lowndes and Lanier counties (Figure 1-1). The installation consists of the main base (5,094 acres), Grand Bay Range (5,874 acres), and the Grassy Pond Recreational Annex (489 acres), which is located 25 miles southwest of the main base.

The proposed bivouac site is located centrally along the northern boundary of the installation, east of the Moody AFB Recycling Center. The proposed field training exercise/bivouac (FTX) area consists of 7.13 acres bounded by an unimproved road (Eisemann Highway) and is primarily comprised of mature loblolly forest with scattered hardwoods.

Locations for accomplishing required contingency training have been proposed within the boundaries of Moody AFB (Figure 1-3). Training at Moody AFB may have to be conducted at geographically separated sites because of installation-specific military mission constraints, such as safety fans around firing ranges and explosives storage areas, and competing military mission requirements.

Additional site-specific information and descriptions of each alternative location is provided below under Section 3.0 Affected Environment and Consequences.

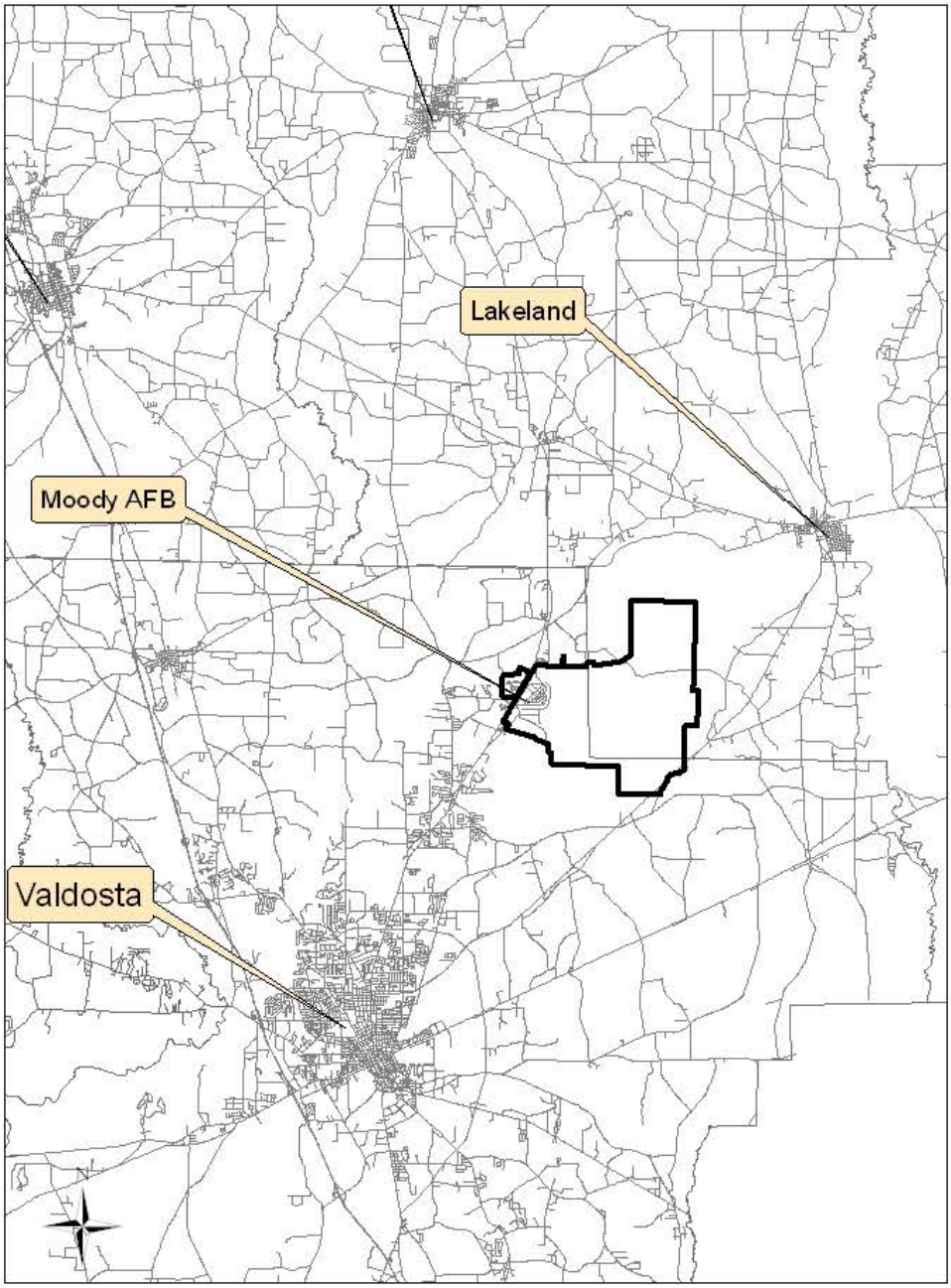

Figure 1-1
Moody Air Force Base General Location

Figure 1-2

Legend

Gopher Tortiose Burrow

0 30 60 120 Meters

1:2,054

N

23 Jan 06
MNB

1.3 Scope of the Environmental Review

The Proposed Action and alternatives have the potential to affect certain environmental resources. These potentially affected resources have been identified through scoping, communications with state and federal agencies, on-site surveys by installation staff, and reviews of past environmental document. Specific environmental resources with the potential for environmental consequences from implementation of the Proposed Action or the alternatives include:

- Cultural Resources
- Hazardous Materials, Pollutants, and Contaminants
- Physical Resources
- Vegetation Resources
- Water Resources
- Wildlife Resources

Based upon an initial screening of potential environmental consequences by installation personnel, it was determined that the Proposed Action and alternatives were not likely to affect air quality resources, socioeconomics, environmental justice, noise, airspace management or Air Traffic Control, safety, or physical resources. Therefore, the environmental consequences of the Proposed Action and alternatives on these resources are not included in this document.

1.4 Applicable Regulatory Requirements

Based on the scope of the environmental review, it has been determined that the following laws and regulations apply to the proposed action and are considered in this environmental document:

- 32 Code of Federal Regulations 989, *The Environmental Impact Analysis Process*
- Air Force Instruction 32-7064, *Integrated Natural Resources Management*
- Clean Water Act
- Executive Order 11988, *Floodplain Management*
- Executive Order 11990, *Protection of Wetlands*
- National Environmental Policy Act
- National Historic Preservation Act
- Resource Conservation and Recovery Act
- Sikes Act

2.0 DESCRIPTION OF PROPOSED ACTION AND ALTERNATIVES

2.1 Minimum Selection Criteria

The Air Force considered several alternatives to the Proposed Action. In the initial screening of these alternatives, the Air Force took into consideration minimum selection criteria. Only those alternatives that met these criteria were considered suitable for detailed analysis. The selection criteria were conformance to existing laws, Air Combat Command, Department of the Air Force, and Department of Defense policy and regulations, compatibility with the Base Master Plan and the Moody AFB military mission, and satisfactorily meeting the needed requirements (e.g., able to provide proficiency training in all requirements).

2.2 Detailed Description of the Proposed Action

The Proposed Action is create a dedicated Civil Engineer Contingency Training Area on Moody AFB to allow required contingency training to be accomplished at one geographic location (Figure 1-2). As required by AFI 10-210, civil engineer personnel would be trained in combat skills, field sanitation, force beddown, field construction and repair methods, and force protection measures.

To prepare the site for use, all vegetation in the interior of the area would be cleared, and stumps would be removed. The site would be graded and smoothed, and an interior gravel road would be constructed bisecting the area north to south. Concrete slabs would be constructed to serve as the foundation for tents and other structures and equipment that would occur on site. Approximately 40,300 square feet of concrete in various configurations would be constructed on the site (See Figure 2-1).

During training events, unit personnel would convoy to the FTX site and set up a bivouac site, consisting of small shelter systems (12-person tents) that would serve as temporary housing for approximately 60 troops during each training event. Minimum ground disturbance would be associated with setting up the bivouac site and would primarily be limited to stakes and other support structures. Power would be provided by generators, and portable toilets would be used for latrines. Meals would either consist of MREs or be brought to the site from an off-site kitchen. Troops would mobilize on a Monday, set up the training base, train for three days, and reconstitute on Friday. All 60 persons would remain on site for the entire training event.

Figure 2-1
Proposed Location of Concrete Slabs

Combat skill and force protection training would occur in the following training areas (Figure 2-2):

Combat Skill and Force Protection Training Area 1 (SFG Training Area 3). This training area is located centrally along the northern boundary of the installation, east of the Moody AFB Recycling Center and the 820 SFG facility. The training area is bisected by an installation unimproved road and is primarily comprised of mature pine forests. Because of known environmental concerns, training in this area would not include ground disturbance or the digging of hasty fighting positions.

Combat Skill and Force Protection Training Area 2 (SFG Training Area 4). This training area is located along the southern boundary of the installation, south of Range Road and the CATM Range, and southeast of the Moody AFB airfield. The training area is surrounded by unimproved roads to the east, south, and west, and with Range Road to the north. It is primarily comprised of a mature pine forest with a large wetland complex in the middle of the area. Training in this area would include ground disturbance through the digging of hasty fighting positions.

Combat Skill and Force Protection Training Area 3 (Bemiss Field Area). This proposed training area is located in Grand Bay Range along the eastern boundary of the installation. Bemiss Field was used during the 1940s as an auxiliary airstrip for Moody AFB. The previous asphalt cover was removed and the site was vegetated with Bahia grass and is used for various military training activities, including as a helicopter landing zone, a C-130 Drop Zone, and a parasailing area for student pilots. The majority of the area surrounding Bemiss Field has been cleared, with mature planted loblolly pine forests surrounding the field. Training would be conducted within a 500-acre area surrounding Bemiss Field. Training in this area would include ground disturbance through the digging of hasty fighting positions.

This training would include the use of M16 weapons with 5.56mm blank ammunition and ground burst simulator (GBS) during convoy and force protection training. A maximum of 1000 rounds of blank ammunition would be expended during the week-long training event, and would be limited to prescribed use areas on Moody AFB. The GBS consists of a mobile box that generates ground burst noise by detonating a combination of two gases in an internal chamber. The device is remotely detonated, and leaves behind no residual materials or contamination. Combat skill and force protection training would include foot movements of squad-sized forces throughout the proposed training areas while using blanks and GBS. As part of the proposed training, a base defense operations center would be established at the bivouac site, with hasty fighting positions constructed around the perimeter. Hasty fighting positions would primarily take advantage of natural cover, but may require minor excavations of up to one-half meter (18-20 inches) in depth. Excavated dirt would be used to provide cover around the position. Bunkers and two-man fighting positions requiring deeper excavations would not be constructed.

Figure 2-2
Proposed Training Areas

A maximum of 30 vehicles would be used during contingency training activities. Vehicles would convoy from the CES compound to the bivouac site, and all vehicle use during field training would be limited to existing roads and trails. No all-terrain vehicles (ATVs) or other off-road vehicles would be used during training events. Several low-speed vehicles (Gators) would be used during the training exercises but would remain on established roads and trails. Following the week-long training event, vehicles would return to the CES compound along the same initial convoy route.

Port-a-potties will be brought in and utilized for hygiene activities. Personnel will be provided with MREs or meals provided by services. As part of the requirement for Environmental Management training, drip pans would be placed under parked vehicles to prevent potential petroleum-oil-lubricant (POL) contamination. Solid waste and other trash generated from the training activities would be disposed of in roll-off dumpsters. Recyclable materials would be sorted and would be returned to the Moody AFB Recycling Center following each training event.

2.3 Alternatives to the Proposed Action

The three alternatives to the proposed action are: 1) to construct the Civil Engineer Contingency Training FTX site with permanent structures; 2) to conduct Civil Engineer

Contingency Training at the Silver Flag Exercise Site located near Tyndall AFB, FL ; and, 3) the no action alternative.

2.3.1 Alternative 1

This alternative is similar in size and scope to the proposed action. However, instead of utilizing a mobile kitchen and portable toilets, permanent structures would be constructed and associated underground utilities (drinking water, wastewater, and electricity) would be routed to the site down Eisemann Highway. The environmental effects of this alternative will be further analyzed in this document.

2.3.2 Alternative 2

Under this alternative, a dedicated Civil Engineer Contingency Training Area would not be established and contingency training, as required by AFI 10-210, would be completed at the Silver Flag Exercise Site. Because of the excessive distance and the number of personnel requiring contingency training on a quarterly basis, the requirement to send personnel TDY to the Silver Flag Exercise Site would be cost and time prohibitive. Therefore, it was determined that this alternative was not reasonable and it will be dropped from further consideration under this environmental assessment.

2.3.3 No Action Alternative

Under this alternative, Civil Engineer contingency training would not occur and Moody AFB airmen would not receive training as required by AFI 10-210. The environmental effects of this alternative will be further analyzed in this document.

3.0 AFFECTED ENVIRONMENT AND CONSEQUENCES

3.1 Introduction

The physical and biological components of the proposed project area are described below under each applicable section. The physical and biological components of the alternate training sites at Moody AFB are described in Moody AFB's Integrated Natural Resources Management Plan, and in the Moody AFB Natural Heritage Inventory Final Report. These documents are available for review in the Environmental Flight.

Neither the Proposed Action or any of the analyzed alternatives would have adverse effects to areas of critical environmental concern, coastal zones, wilderness areas, wild or scenic rivers, hazardous waste sites, archaeological remains, historic sites, or Native American religious concerns.

3.2 Cultural Resources

Cultural resources consist of prehistoric and historic districts, sites, structures, artifacts, and any other physical evidence of human activity considered relevant to a culture or community for scientific, traditional, religious, or other reasons. They include archeological resources (both prehistoric and historic), historic architectural resources, and American Indian sacred sites and traditional cultural properties. Historic properties are defined by 36 CFR 60.4 as significant archeological, architectural, or traditional resources that are defined as either eligible or ineligible for listing in the National Register of Historic Places (NHPA). Under the National Historic Preservation Act (NHPA), federal agencies are required to consider the effects of their undertakings on historic properties listed or eligible for listing in the National Register. NHPA obligations for a federal agency are independent from NEPA/EIAP and must be complied with even when an environmental document is not required. The Native American Graves and Repatriation Act (NAGPRA) of 1990 protects Native American burials sites and controls the removal of human remains, funerary objects, sacred objects, and items of cultural patrimony on federal and tribal lands.

3.2.1 Existing Conditions

Lying within the Tifton upland region of the Georgia Coastal Plain, Moody AFB has a varied cultural sequence. Inhabitants of the Georgia Coastal Plain are thought to have thrived from the Pre-Paleo-Indian (>11,000 years before present (BP)) through Paleo-Indian (11,000-9,000 BP) periods, the Archaic Period (9,800-2,500 BP), the Woodland Period (2,500 BP - 1000 AD), and the Mississippian Period (1000-1540 AD). Historic sites range from Mississippian times through the Cold War Era, with an Early European presence also represented on the Georgia Coastal Plain. Most of the known archeological sites in this region are from the Woodland and Mississippian Periods. However, relatively little archeology has been conducted in Lowndes and Lanier counties.

A Phase I Archeological Survey of Moody AFB was accomplished in 1995. As a result of this survey, the Air Force identified numerous archeological sites on the installation, including one site (9LW71/9LW70) recommended as eligible for listing in the National Register and four sites (9LN17, 9LW52, 9LW63, and 9LW67) as potentially eligible for listing on the National Register (Figure 3-1). Sites 9LW71 and 9LW70 were consolidated into one site. This is a multi-component site with late Paleo-Indian, Early Archaic, and Woodland scatters. Site 9LW67 is a multi-component site with historic and Woodland artifacts and is less than 50 percent disturbed. Site 9LW63 is a prehistoric site of unknown origin and remains undisturbed. Site 9LN17 is a prehistoric lithic scatter of unknown origin and is approximately 45% disturbed. Site 9LW52 is a historic artifact scatter believed to be less than 50 percent disturbed and is in a cultivated area. One historic building, the Water Tower (Building 618), was determined to be potentially eligible for listing on the National Register. The water tower was built in 1941 and is a 200,000 gallon capacity steel water tower with an elevated tank. The historic significance of the water tower is that this tower is one of the few remaining recognizable structures that has remained constant on Moody AFB. It is significant as part of World War II mobilization and training activities at a local level. There are no known Traditional Cultural Resources and/or Sacred Sites as defined under NAGPRA identified on Moody AFB.

3.2.2 Environmental Consequences

Analysis of potential impacts to cultural resources includes impacts that may occur by physically damaging or destroying all or part of a resource, altering the surrounding environment that contributes to the resource's significance, or neglecting the resource to the extent that it deteriorates or is destroyed. Archeological sites are fragile and nonrenewable resources that may suffer varying degrees of impact from natural and human-created effects. A site's scientific value is closely tied to its context or deposition history. Therefore, any action that disturbs the soil or surface vegetation can damage or destroy that context and expose artifacts to looters. Impacts are assessed by identifying the types and locations of a proposed activity and determining the exact location of cultural resources that could be affected.

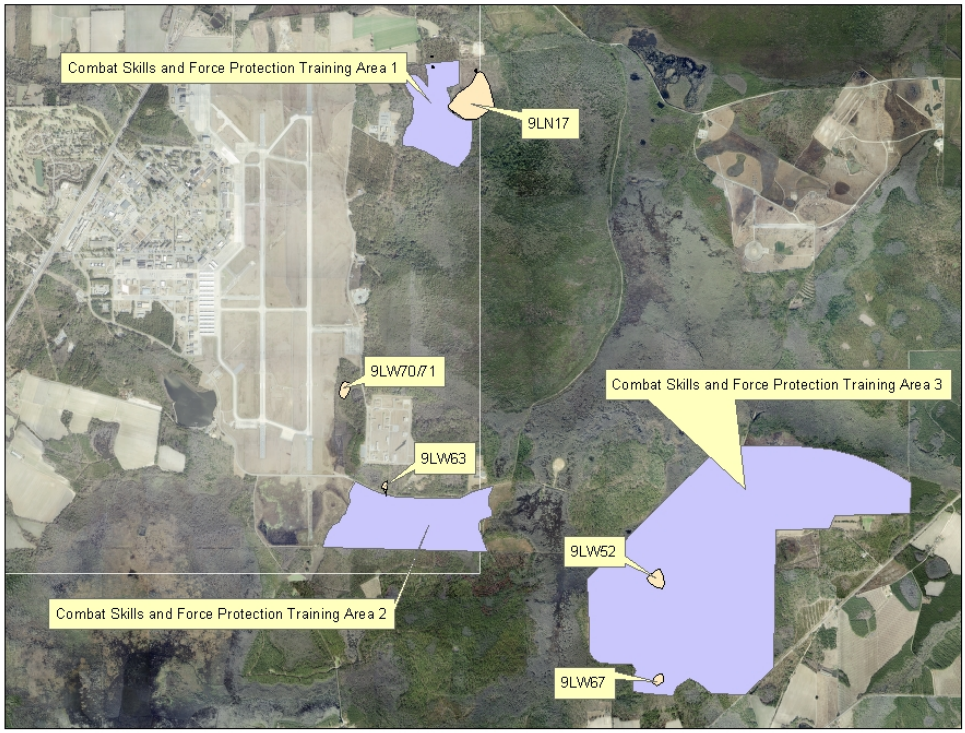

Figure 3-1
Cultural Sites in Relation to
Proposed Training Areas at Moody AFB

3.2.2.1 Proposed Action

Based on current information on cultural resources at Moody AFB, no potential impacts to archeological resources or historic structures are expected from the proposed actions. The proposed action will result in the ground disturbance of approximately five acres of previously undisturbed land. However, since Phase I archeological surveys have not identified any sites on the proposed FTX site, there should be no significant impact to cultural resources as a result of implementation of this action. Personnel would be instructed to stop work and notify the base archeologist if artifacts are discovered during ground disturbance activities on the site. To ensure compliance with Section 106 of the NHPA, the SHPO will be consulted prior to implementation of any actions on this site, and any recommendations from the SHPO would be applied to minimize impacts to cultural resources.

9LN17 is located adjacent to Combat Skills and Force Protection Training Area 1. However, there would be no digging or other ground disturbance conducted in this training area, so no impacts to archeological resources would occur.

There are no archeological sites eligible for listing located within Combat Skills and Force Protection Training Area 2. The closest site, 9LW70/71, is located approximately 2,000 feet northwest of this site. Training Area 2 is currently used by Moody AFB units

for similar military training activities, including the digging of hasty fighting positions and foxholes. These activities were coordinated and approved by the SHPO, so there should be no impacts to archeological resources related to the use of this area.

Archeological sites 9LW52 and 9LW67, both potentially eligible for listing, are located within Combat Skills and Force Protection Training Area 3. Training Area 3 is currently used by Moody AFB units for similar military training activities, including the digging of hasty fighting positions and off-road vehicle training. These activities were previously coordinated and approved by the SHPO under a separate EIAP document, so there should be no impacts to archeological resources related to the use of this area.

In summary, there should be no significant impacts to any cultural resources as a result of implementation of this alternative at Moody AFB. Prior to implementation of this action, the SHPO would be consulted in accordance with the NHPA.

3.2.2.2 Alternative 1

The environmental effects of this alternative are very similar in size and scope to the proposed action. Under this alternative, there will be additional ground disturbance associated with the routing of utilities to the site. However, the utilities will be routed along the Eisemann Highway right-of-way, which has already been heavily disturbed. Therefore, there should be no significant impacts to cultural resources as a result of implementation of this alternative.

3.2.2.3 No Action Alternative.

Under this alternative, no Civil Engineer contingency training activities would occur. Therefore, no potential for ground disturbance would be possible, and there would be no impacts to historic properties or cultural resources.

3.3 Hazardous Materials, Pollutants, and Contaminants

3.3.1 Existing Conditions

Toxic Substances Control Act (TSCA). The TSCA regulates approximately 75,000 industrial chemicals currently produced and used in the United States. Of these, asbestos containing material (ACM), radon, and lead-based paint (LBP) are items of particular concern.

Environmental Restoration Program (ERP). The Environmental Restoration Program (ERP) is used by the U.S. Air Force to identify, characterize, clean-up, and restore sites contaminated with toxic and hazardous substances, low-level radioactive materials, petroleum, oils, lubricants, and other pollutants and contaminants. The ERP has established a process to evaluate past disposal sites, control the migration of contaminants, identify potential hazards to human health and the environment, and

remediate the sites. Moody AFB has an active ERP that manages numerous sites within the boundaries of the installation (Figure 3-2).

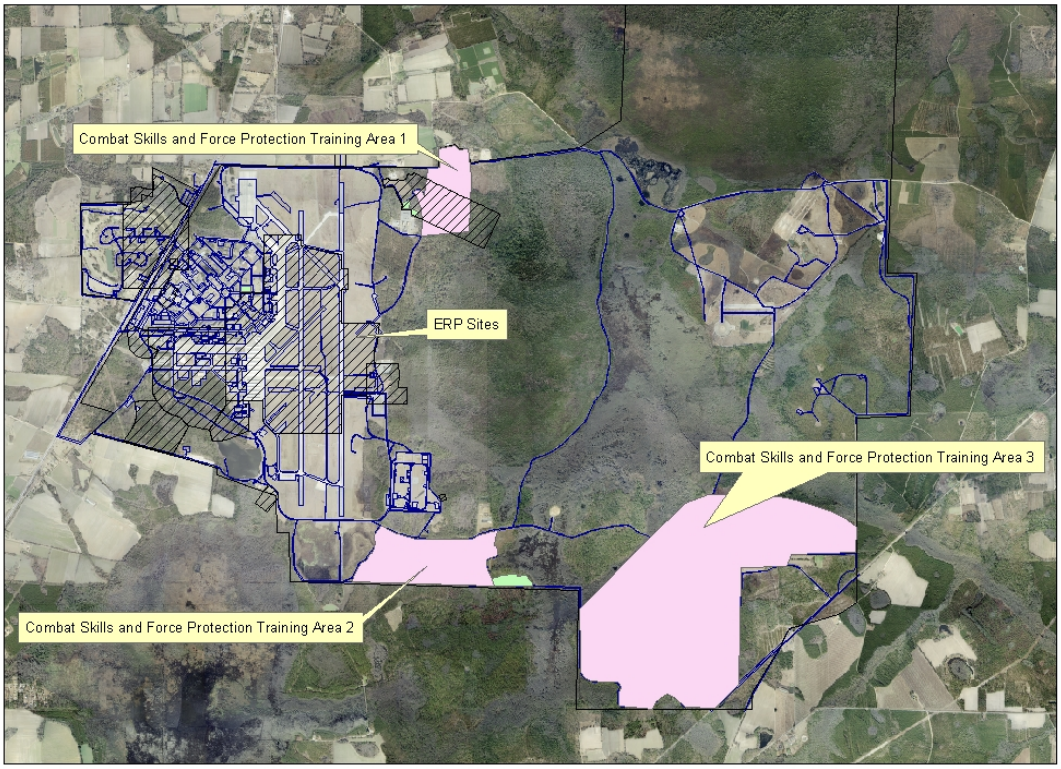

Figure 3-2
ERP Sites in relation to
Proposed Training Areas at Moody AFB

3.3.2 Environmental Consequences

3.3.2.1 Proposed Action

TSCA. Disturbance or contact with hazardous materials, pollutants, and contamination could possibly occur through repair or demolition of contaminated facilities or through digging and other ground disturbance. Since there are no existing facilities located within the proposed FTX site, there are no ACM, radon, or LBP concerns. There would be no significant impacts to TSCA-regulated substances as a result of implementation of this action.

ERP. There are no ERP sites located within the boundaries of the proposed FTX site. However, this site has never received intensive investigation and no soil samples have been taken from the area. Therefore, it cannot be guaranteed that contaminated soils will not be encountered during ground disturbance activities. Based on known soil contamination on other ERP sites on the installation, it is likely any contaminated soils would not pose a threat to human health. Personnel will be instructed over the potential for soil contamination, and will be instructed to halt work and notify the ERP Program

Manager if potentially contaminated soils are discovered during operations. No ERP waiver would be required. There would be no significant impacts to ERP sites as a result of the proposed action.

There is an ERP site (LF-04) located within Combat Skills and Force Protection Training Area 1. The contamination associated with this site within Training Area 1 is limited to shallow groundwater contamination. Since there would be no digging or other ground disturbance conducted in this training area, there would be no disturbance or contact with contaminants associated with this site. As part of the ERP site, numerous monitoring and injection wells are scattered throughout the training area and would be avoided by military personnel training in the area. There are no ERP sites, hazardous materials, pollutants, or contaminants within Combat Skills and Force Protection Training areas 1 and 2. Therefore, there would be no impacts to hazardous materials, pollution, or contaminants in this area.

3.3.2.2 Alternative 1

The environmental effects of Alternative 1 in relation to hazardous materials, pollutants, and contaminants, including TSCA-regulated items and ERP sites, would be similar in size and scope to the proposed action. Therefore, there would be no impacts to hazardous materials, pollution, or contaminants as a result of implementation of this alternative.

3.3.2.3 No Action Alternative. Under this alternative, no Civil Engineer contingency training activities would occur. Therefore, no potential for disturbance to hazardous materials, pollution, or contamination would be possible, and there would be no impacts to these resources.

3.4 Physical Resources

Physical resources include both earth and water resources within a given area. Earth resources are defined as the geology, topography, and soils of a given area. The geology of an area includes bedrock materials, mineral deposits, and fossil remains. Topography refers to terrain, dominant landforms, and other visible features. Soils are unconsolidated materials on or near the surface and are defined by classifications and associations. A soil classification is a broad term for the general type of soil found in a larger area (e.g., hydric, alluvial, or clay soils). Soil associations are site-specific based on the particular soil type or complex found at that location.

Control of erosion and sedimentation is managed under the Georgia Erosion and Sedimentation Control Act (GESCA). Construction activities that disturb more than 1.0 acres of land require permitting under the GESCA. Authority for the GESCA is vested in the Georgia Soil and Water Conservation Commission. However, this authority has been delegated to the county level where appropriate. Prime farmland soils are protected under the Farmland Protection Policy Act, administered by the Natural Resources Conservation Service (NRCS). This law was promulgated to reduce the substantial decrease in the amount of open farmland in the United States. Specifically, federal agencies are directed to prevent the unnecessary and irreversible conversion of farmland

to nonagricultural uses. If prime farmland soils are impacted by proposed federal actions, a prime farmland evaluation (USDA Form 1006) must be completed and the federal agency must consult with the NRCS.

3.4.1 Definition of Physical Resources

Physical resources include both earth and water resources within a given area. Earth resources are defined as the geology, topography, and soils of a given area. The geology of an area includes bedrock materials, mineral deposits, and fossil remains. Topography refers to terrain, dominant landforms, and other visible features. Soils are unconsolidated materials on or near the surface and are defined by classifications and associations. A soil classification is a broad term for the general type of soil found in a larger area (e.g., hydric, alluvial, or clay soils). Soil associations are site-specific based on the particular soil type or complex found at that location.

3.4.2 Existing Conditions

Geologically, Moody AFB is located within the Georgia Lower Coastal Plain. The predominant landform on about 80% of this area consists of moderately dissected, irregular plains of marine origin formed by deposition of continental sediments on to the submerged shallow continental shelf, which was later exposed when the sea receded from this area. The most important stratigraphic unit is the Suwannee Limestone, which contains the upper portions of the Floridan Aquifer. This layer ranges in thickness from approximately 200 to 250 feet and is usually less than 200 feet below ground surface.

Moody AFB is located in the Tifton Upland District, East Gulf Coastal Plain Section, Coastal Plain Province, Atlantic Plain Major Division physiographic province. The Tifton Upland District is characterized by flat to sloping plateaus separated by shallow river valleys, broad wetland depressions, and karst topography. Elevations in this area range from 480 feet in the north to 150 feet in the southeast indicating the regional slope.

The northwestern and northern boundary of this area is the base of the Pelham Escarpment, which rises as much as 200 feet above the Dougherty Plain. The eastern boundary follows eastern drainage divide of the Alapaha River. Specifically, Moody AFB is located on the level plateau between the Withlacoochee River to the west and the Alapaha River to the east. Land surface elevations on Moody AFB vary from its lowest point on the eastern portion at 190 feet MSL to about 240 feet MSL near the center of the base. Slopes range from 0 to 5 percent on the installation.

Surface soils in the Tifton Upland District are characterized by sandy clay interbedded with fine sand to coarse-grained sand and sandy limestone. General characteristics of this region include well-drained soils and slopes ranging from 0 to 12 percent. The upland soils were formed from deep sedimentary sands and clays, with lower alluvial soils formed from eroded uplands. The two most dominant soil associations at Moody AFB include the Tifton-Pelham-Fuquay and the Dasher associations. The majority of the cantonment area (located immediately east of State Highway 125) consists of the Tifton-

Pelham-Fuquay association containing soils with a sandy surface layer and a loamy subsoil. The Dasher association covers the majority of the Grand Bay Range, and consists of soils in marshes, swamps, and drainage ways.

Descriptions of the predominant soil associations at Moody AFB include the following:

Tifton-Pelham-Fuquay. This association consists of nearly level and gently sloping soils on ridge tops, hillsides, and in drainage ways that dissect the ridges. The ridges are typically less than one mile wide, and the drainage ways range from about 50 to 250 feet wide. This association makes up about 36 percent of the soils in Lowndes County, where the proposed training sites on Moody AFB are located. Tifton soils make up about 49 percent of the association, Pelham soils about 16 percent, the Fuquay soils about 8 percent, and the minor soils about 27 percent. Tifton and Fuquay soils are generally located along the ridges, and Pelham soils are in drainage ways and intermittently ponded depressions. Tifton soils are well drained and nearly level or very gently sloping. Typically, the surface layer is brown loamy sand about 8 inches thick. The subsoil is sandy-clay loam and extends to a depth of 60 inches or more. Pelham soils are poorly drained and nearly level. Typically, the surface layer is black loamy sand about 8 inches thick. The subsurface layer is gray loamy sand about 17 inches think. The subsoil extends to a depth of 65 inches or more. Fuquay soils are well drained and nearly level or very gently sloping. Typically, the surface layer is dark grayish-brown loamy sand about 7 inches think. The subsurface layer is light yellowish-brown loamy sand about 14 inches thick. The subsoil is dominantly sandy-clay loam and extends to a depth of 60 inches or more. Minor soils in this association are the well-drained Dothan, Nankin, and Sunsweet soils and the moderately well-drained Stilson soils. Dothan, Nankin, and Sunsweet soils are on ridges and hillsides, as are Tifton and Fuquay soils, and the more sloping Sunsweet soils are on short hillsides. Stilson soils occur on low uplands.

Most of the cultivated land in Lowndes County is on Tifton and Fuquay soils. Corn, tobacco, soybeans, cotton and peanuts are the major agricultural crops. Also, some areas are used for some permanent pasture. The main concern of management is control of erosion on the gently sloping soils. Pelham soils are used mainly for producing timber, but some areas are in pasture. This association generally has slight limitations for most non-farm uses, but because of wetness and flooding, Pelham soils are severely limited for crop production.

Dasher. These soils are characteristic of swampy areas and level, very poorly drained organic soils in flooded areas.

Clarendon soils are defined as moderately well drained loamy sands. This soil is nearly level, with slopes of less than 2%. The topsoil is about eight inches thick and is comprised of dark gray loamy sand. The subsoil extends to about 65" and is a sandy clay loam. This soil is low in natural fertility and organic matter and is strongly acidic with moderate permeability. Clarendon soils are classified as prime farmland soils by the Natural Resources Conservation Service (NRCS).

The two Tifton soils are both well drained loamy sands with slight slopes averaging between 2 and 5%. The Tifton urban complex soils are generally more level as a result of significant mechanical shaping. The topsoil is about eight inches deep and consists of a brown loamy sand. The subsoil extends to a depth of more than 60 inches, and is a sandy clay. These soils are moderate in fertility and low in organic matter, and have moderate permeability.

Olustee sand is a poorly drained, nearly level soil comprised primarily of sand. The topsoil consists of a very dark gray sand about seven inches thick. It is underlain by a weakly cemented, very dark grayish brown sand that extends to a depth of about 12 inches. The subsoil is about 65 inches deep, and is comprised of a gray sandy clay loam mottled with brown. This soil is low in fertility and organic matter and has moderate permeability.

Pelham loamy sands are poorly drained, nearly level soils. The topsoil is about eight inches thick and consists of a black loamy sand. The subsoil is a gray loamy sand with mottling that extends to a depth of 65 inches. This soil is low in natural fertility and has moderate amounts of organic matter. This soil has a low potential for most nonfarm uses because of flooding and wetness. Pelham loamy sands are classified as hydric soils in Georgia by the NRCS.

3.4.3 Environmental Consequences

3.4.3.1 Proposed Action

The Proposed Action will result in a limited impact to soils and other physical resources. Construction of the FTX area would not significantly affect the geologic units underlying the site, and would not result in land use changes or impacts to topography. The soils underlying this area are not classified as prime farmland soils, so there would be no conversion or impacts to these resources as a result of implementation of the Proposed Action. Soils would be disturbed during construction activities, but given the flat topography of the proposed FTX area, stormwater runoff and overland flow velocities from rainfall events on disturbed ground would be slow, and there should be no significant erosion or sedimentation impacts. In accordance with the NPDES Stormwater Phase II regulations and the Georgia Erosion and Sedimentation Control Act, an erosion and sedimentation control plan would be developed and implemented on the site. This plan would include silt fences and a 50-foot vegetative barrier to minimize soil erosion and sedimentation. Permits to comply with these regulations would be sought from the Georgia Environmental Protection Division and the Lanier County Commission.

Other contingency training activities, such as setting up bivouac areas and constructing hasty fighting positions, would result in limited ground and soil disturbance. Convoy training would occur on existing graded roads and trails. These impacts would be of limited duration and would only occur biannually. Hasty fighting positions would be refilled following the training event, and should quickly revegetate. Therefore, there

should be no significant impacts to soils, topography, or geology as a result of implementation of the Proposed Action.

3.4.3.2 Alternative 1

The environmental effects of Alternative 1 would be similar in size and scope to the proposed action. Additional silt fences would be installed in areas where utilities will be routed to prevent erosion and sedimentation, and applicable permits would be obtained. Therefore, there should be no significant impacts to soil, topography, or geology as a result of implementation of this alternative.

3.4.3.3 No Action Alternative. Under this alternative, no Civil Engineer contingency training activities would occur. Therefore, no potential for disturbance to physical resources would be possible, and there would be no impacts to these resources.

3.5 Vegetation Resources

This section focuses on vegetation types or species that are important to the function of the ecosystem or are protected under federal or state law. For this EA, the term *vegetation* is defined as all existing terrestrial plant communities, including threatened, endangered, or sensitive plant species. The affected environment for vegetation includes only those areas potentially subject to ground or vegetative disturbance.

3.5.1 Existing Conditions

Moody AFB lies within the Outer Coastal Plain Forest (OCPF) province of the U.S. lowland ecoregion. The OCPF is dominated by temperate rainforest, also called temperate evergreen forest and laurel forest. It differs from the equatorial and tropical rainforest by having fewer species of trees and hence, large populations of individual species. Trees are not as tall as in the low latitude rainforest, leaves usually are smaller and more leathery, and the leaf canopy is less dense.

The trees commonly found in the southeastern United States are pines (*Pinus spp.*), oaks (*Quercus spp*), and members of the laurel and magnolia families. Southeastern forests usually have a well- developed lower stratum of vegetation that includes tree ferns, small palms, shrubs, and herbaceous plants. Lianas and epiphytes are abundant. An example of conspicuous epiphyte accumulation at low elevations is the Spanish “moss” (*Tillandsia usneoides*) that festoons the oaks, bald cypress (*Taxodium distichum*), and other trees of the eastern Gulf Coast. Forests of longleaf, loblolly, and slash pine dominate large areas of sandy upland xerophytic habitat as a subclimax forest, maintained by frequent fires. Vast areas of gum-bay swamps and scrub-shrub wetlands exist throughout the area. Bald cypress and pond cypress (*Taxodium* ascendens) are dominant trees in swamps and cypress domes throughout the region.

The majority of the pine forests found in the southeastern U.S. represent second-growth forests established after a disturbance event, such as a catastrophic wildfire or

deforestation activity (natural or anthropogenic). Under natural conditions, lightning-caused summer fires were an important component in maintaining pine-dominated ecosystems in the coastal plain area. These fires not only burned through pine stands in upland and flatwoods areas, but would also burn wetlands and hammocks during periods of extreme drought. These periodic fires maintained the pine subclimax forest by controlling hardwood competition, encouraged the growth of herbaceous vegetation, and maintained open water areas within the wetlands by removing layers of peat and sphagnum moss.

Located in the lower coastal plain physiographic region within the OCPF, Moody AFB possesses a diversity of habitats. Both areas are dominated by pines and lowland hardwoods and support a wide array of plant and wildlife species typical of these systems.

Habitats featured at Moody AFB include upland pine forest, pine flatwoods, gum-bay-shrub swamps, upland hardwood hammocks, and freshwater ponds. Unimproved areas of Moody AFB feature several distinct natural communities or ecosystems. These communities range from xeric to hydric, with transitions and dynamic interactions between the different areas. Natural communities on Moody AFB include upland pine forests, pine flatwoods, and extensive areas comprised of various wetland communities. The primary key ecological feature of Moody AFB is the vast area contained in wetlands. Wetlands cover approximately 5,500 acres (46.4%) on the installation, with the vast majority of this acreage being concentrated in the Grand Bay/Banks Lake ecosystem complex. The Carolina bays are typically vegetated with a scrub-shrub cover type; wetter areas transition into a black gum-cypress swamp association with pockets of open water. The black gum-cypress swamp association is primarily vegetated with an overstory of black gum and cypress, but contains significant numbers of red maples (*Acer rubrum*) and sweetbays (*Magnolia virginiana*). The understory vegetation is moderately dense and consists of heaths, redbay (*Persea palustris*), wax myrtle (*Myrica cerifera*), cinnamon fern (*Osmunda cinnamomea*), chain fern (*Woodwardia virginica*), and greenbrier (*Smilax spp*). In the transition areas from wetlands to uplands, pond pine (*Pinus serotina*), slash pine, and dense thickets of evergreen shrubs and palmetto become more predominant as the soils transition from hydric to mesic. Eventually, the upland areas are comprised predominantly of a pine forest type, established either through natural community succession or through artificial regeneration (i.e., pine plantations).

FTX Area. This site is located north of the Eisemann Highway along the installation boundary. Vegetation in this area consisted of a mature loblolly pine forest with a basal area of about 70 square feet per acre. However, the eastern half of this site was recently clearcut and all the pines removed through a small lot timber sale. Scattered hardwood trees and residual slash from the timber harvesting operation remain on site.

Combat Skill and Force Protection Training Area 1 (SFG Training Area 3). This training area is bisected by an installation unimproved road. Vegetation north and west of this road consists of a mature loblolly pine forest with a basal area of about 70 square feet per acre. Understory and midstory vegetation consists of blackberries, grapevines,

blueberries, sparkleberries, sassafras, and other shrubs. Scattered water oaks, black cherries, and other hardwood trees are present throughout the area. The vegetation south and east of this road consists of a mature slash and longleaf pine forest with a moderate understory/midstory comprised of fetterbush, blueberries, sparkleberry, gallberry, and other common shrubs. As the area drops in elevation towards the Moody Bay wetlands, midstory vegetation becomes thicker and more pronounced. Biological surveys conducted by the installation have indicated that there are no sensitive or listed plant species located within this training area.

Combat Skill and Force Protection Training Area 2 (SFG Training Area 4). The vegetation in this area consists of a mature slash and loblolly pine forest with scattered longleaf pines in the drier parts. Understory vegetation consists of a thick shrub layer comprised of fetterbush, gallberry, blueberries, and sparkleberries. Small hardwood trees of less than 10 inches DBH, including water oaks and laurel oaks, make up a significant component underneath the pine canopy. Two pine regeneration sites are located within this area, with a five-acre slash pine plantation created in 2003 located in the northwest corner and a five-acre longleaf and loblolly pine plantation created in 2000 along the eastern boundary. Within the interior of this training area is a large wetland area predominated by cypress, red maple, and blackgum. Biological surveys conducted by the installation have indicated that there are no sensitive or listed plant species located within this training area.

Combat Skill and Force Protection Training Area 3 (Bemiss Field Area). Bemiss Field was used during the 1940s as an auxiliary airstrip for Moody AFB. The previous asphalt cover was removed and the site was vegetated with Bahia grass. The eastern wing of the field was invaded with volunteer loblolly pines from adjacent forest stands. These trees exhibit poor growth forms because of an inability to grow in the compacted soil of the old airstrip. In 2003, 200 acres surrounding the center of Bemiss Field was cleared for a C-130 Drop Zone and currently contains grasses and scattered hardwood saplings. The perimeter of the drop zone was planted with longleaf seedlings in 2006. The area surrounding Bemiss Field consists of a 60-year old planted loblolly forest. This forest has a moderate understory/midstory comprised of wax myrtles, fetterbush, blueberries, sparkleberry, gallberry, and other common shrubs. As the area drops in elevation towards Moccasin Bay and other wetlands, the shrub layer becomes more pronounced. There are several small (< 5 acre) wildlife openings planted in Bahia grass and bicolor lespedeza scattered in this area and maintained by the Georgia Department of Natural Resources for wildlife foraging.

3.5.2 Environmental Consequences

3.5.2.1 Proposed Action

In order to construct the FTX site, the site would have to be cleared and leveled, with the stumps and associated logging debris being removed and piled for burning. The scattered hardwood trees would be left on site and would not be disturbed. Following construction

of the concrete pads and other structures, the site would be revegetated with Bahia (or similar) grasses and maintained in a low vegetative state.

Proposed training activities are not expected to have a significant impact of vegetation resources. There would be limited minor trampling of vegetation by personnel moving through the area. Some vegetation would be destroyed during the creation of hasty fighting positions or foxholes. However, given the small size of these areas and the abundance of vegetation resources within Moody AFB and the training areas, the temporary loss of vegetation in these areas would not be significant. Therefore, there would be no significant impacts to vegetation resources as a result of implementation of this alternative.

3.5.2.2 Alternative 1

The environmental effects of this alternative would be identical to the proposed action. Therefore, there would be no significant impacts to vegetation resources as a result of implementation of this alternative.

3.5.2.3 No Action Alternative. Under this alternative, no Civil Engineer contingency training activities would occur. Therefore, no potential for disturbance to vegetation resources would be possible, and there would be no impacts to these resources.

3.6 Water Resources

Water resources include both surface and subsurface water. Surface water includes all lakes, ponds, rivers, streams, impoundments, and wetlands within a defined area or watershed. Subsurface water, commonly referred to as groundwater, if typically found in certain areas known as aquifers. Aquifers are areas of mostly high porosity soil where water can be stored between soil particles and within soil pore spaces. Groundwater and surface water are both impacted by stormwater infiltration and runoff generated during rain events.

The Clean Water Act (CWA) of 1972 is the primary federal law that protects the nation's waters, including lakes, rivers, aquifers, and coastal areas. The primary objective of the CWA is to restore and maintain the integrity of the nation's waters. Stormwater management is regulated under the National Pollutant Discharge Elimination System (NPDES) section of the CWA. All construction and industrial activities that have the potential to impact stormwater quality or disturb more than 1.0 acres of land must be permitted under NPDES regulations.

Wetlands are considered sensitive habitats and are subject to federal regulatory authority under Section 404 of the CWA and Executive Order (EO) 11990, *Protection of Wetlands*. Jurisdictional wetlands are defined as those areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Areas meeting the federal wetland definition are under the

regulatory authority of the U.S. Army Corps of Engineers. Executive Order 11988, *Floodplains Management*, directs government agencies to avoid adverse effects and incompatible development in floodplains. If construction is unavoidable, then the agencies must ensure the action conforms to applicable floodplain protection standards, and that accepted flood-proofing and other flood protection measures are applied to the construction.

3.6.1 Existing Conditions

Moody AFB is located within the Alapaha Watershed Unit. The Alapaha Watershed Unit is approximately 1.2 million acres in size, and drains to the southwest, into the Upper Suwannee River Watershed (1.7 million acres). The Upper Suwannee River Watershed drains into the Lower Suwannee River watershed (1 million acres) which in turn flows into the Gulf of Mexico.

Surface water from the eastern portion of Moody AFB (Grand Bay Range) flows towards Grand Bay Creek, located centrally along the eastern boundary of the installation. Surface water from the southern part of the main base flows into Mission Lake, which in turn flows through several Carolina Bays to Grand Bay Creek. Drainage east of the airfield is directed into Moody Bay, a Carolina Bay which eventually drains into Grand Bay Creek. Grand Bay Creek flows southeast into the Alapaha River and eventually empties into the Suwannee River. Surface water from the northwestern corner of main base drains northwest, forming the headwaters of Beatty Creek (Branch). Beatty Creek flows west into Cat Creek and on to the Withlacoochee River. The Withlacoochee River eventually empties into the Suwannee River.

Approximately 5,500 acres of Moody AFB are covered by wetlands, comprising a significant portion of the 12,000 acre Grand Bay-Banks Lake wetland complex. This complex is the largest blackwater wetlands complex in Georgia outside of the Okefenokee Swamp. This complex is composed of several broad Carolina Bays and shallow lakes, interconnected by cypress-black gum swamp. Open water in this complex is primarily limited to Banks Lake, a man-made lake dammed in the early 1800's to provide power for a grist mill. Moody AFB has three lakes within its boundaries: Shiner Pond, a 65-acre lake located north of Shiner Pond Road in Old Field Bay, Mission Lake, a 27-acre lake located southwest of the Moody AFB airfield, and the Golf Course Pond, a 2-acre pond located between the Quiet Pines Golf Course and the installation housing area. The uplands in the southeastern corner of main base east of the airfield are located within the 100-year floodplain for the Grand Bay-Banks Lake wetland complex (Figure 3-3).

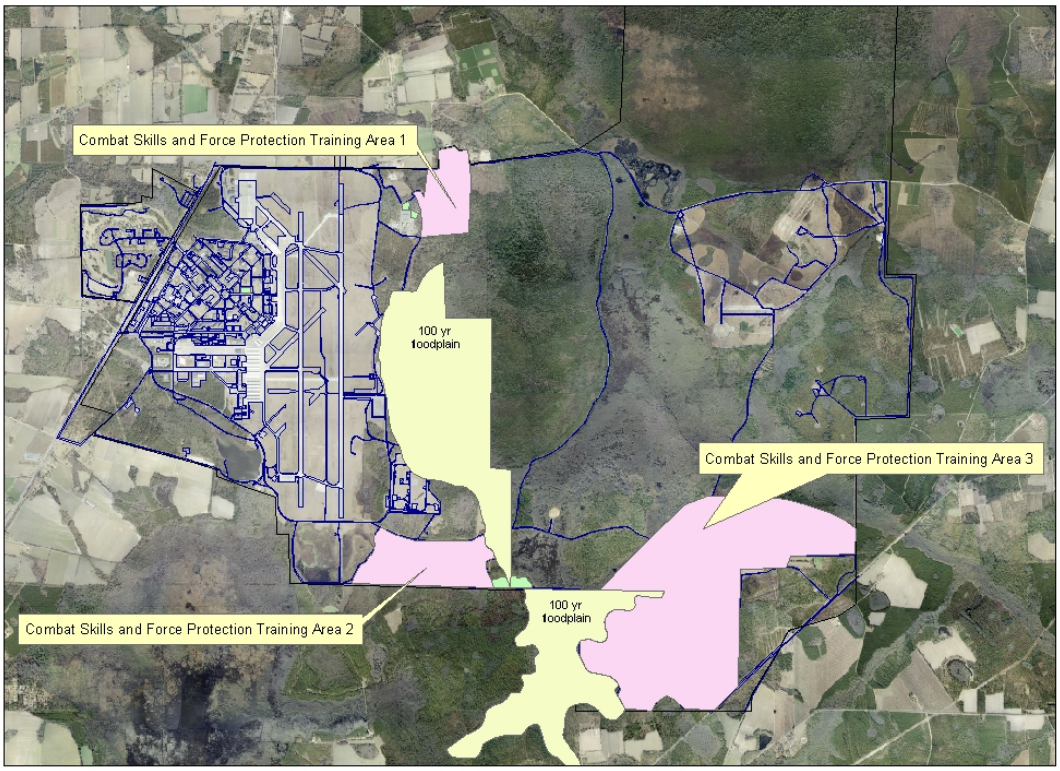

Figure 3-3
100-yr Floodplains in relation to
Proposed Training Areas at Moody AFB

3.6.2 Environmental Consequences

3.6.2.1 Proposed Action

Implementation of the proposed action would have no potential to affect water resources, including wetlands. As addressed in 3.4 above, best management practices, including silt fences and vegetative buffers, would be employed to minimize erosion and sedimentation on the proposed FTX site. All training activities would be conducted in upland areas and would not result in erosion or sedimentation. Therefore, there would not be any impacts to water resources as a result of implementation of the Proposed Action.

3.6.2.2 Alternative 1

The environmental effects of this alternative would be identical to the proposed action. Therefore, there would be no significant impacts to water resources as a result of implementation of this alternative.

3.6.2.3 No Action Alternative. Under this alternative, no Civil Engineer contingency training activities would occur. Therefore, no potential for disturbance to water resources would be possible, and there would be no impacts to these resources.

3.7 Wildlife Resources

3.7.1 Existing Conditions

This section focuses on wildlife species that are important to the function of the ecosystem or are protected under federal or state law. For this EA, the term *wildlife* includes all vertebrate animals within the proposed project area, consisting of fish, amphibians, reptiles, bird, and mammals. Rare, threatened, and endangered (RTE) species are included in this definition. The affected environment for wildlife includes only those areas potentially subject to ground or vegetative disturbance or where proposed actions have the potential to affect these species.

General surveys for rare, threatened, and endangered (RTE) species, including eastern indigo snakes, gopher tortoises, wood storks, bald eagles, and striped newts were conducted in 1993-94 by The Nature Conservancy and in 1995 by Geo-Marine. Surveys specifically for the federally threatened eastern indigo snake and the federally threatened flatwoods salamander were conducted in 2002 and 2003-2004, respectively.

FTX Area. Historically, wildlife species that would have used this area would have been those commonly found in mature pine forests in south Georgia, including species such as white-tailed deer, cottontail rabbits, raccoons, pine warblers, and other migratory birds. However, because of the recent timber harvesting activities, most animals have been temporarily displaced and the site receives only transient wildlife use. There is a small population of gopher tortoises located south and west of this site. This colony consists of 35 adult burrows and one juvenile burrow, with 16 known individuals residing in this area. No other RTE species are known from this location, although it would serve as suitable habitat for the federally threatened eastern indigo snake.

Combat Skill and Force Protection Training Area 1 (SFG Training Area 3). Wildlife species in this area include those commonly found in mature pine forests in south Georgia, including species such as white-tailed deer, cottontail rabbits, eastern wild turkeys, pine warblers, and various rodents, reptiles, and amphibians. There is a small population of gopher tortoises in Combat Skill and Force Training Area 1 primarily located north of the unimproved road in this training area (Figure 3-4). This colony consists of 35 adult burrows and one juvenile burrow, with 16 known individuals residing in this area. No other RTE species are known from this location.

Combat Skill and Force Protection Training Area 2 (SFG Training Area 4). Wildlife species in this area include those commonly found in mature pine forests in south Georgia, including species such as white-tailed deer, cottontail rabbits, eastern wild turkeys, pine warblers, and various rodents, reptiles, and amphibians. Because this site is wetter than the other two proposed combat skill and force protection training areas, there are greater numbers of reptiles and amphibians in this location, including frogs, toads, and snakes. There are no gopher tortoises located in this training area. However, federally threatened eastern indigo snakes are known from this site. In 1991, Georgia DNR personnel captured and measured an eastern indigo snake on Range Road just east

of the CATM Range. In 2004, an environmental contractor preparing fire breaks observed a single indigo snake within the proposed training area. Based upon the sighting locations and the lack of suitable winter dens in the area, installation personnel believe that indigo snakes use this area for foraging on a transient basis, and are not present in the area year-round. No other RTE species are known to occur in this training area.

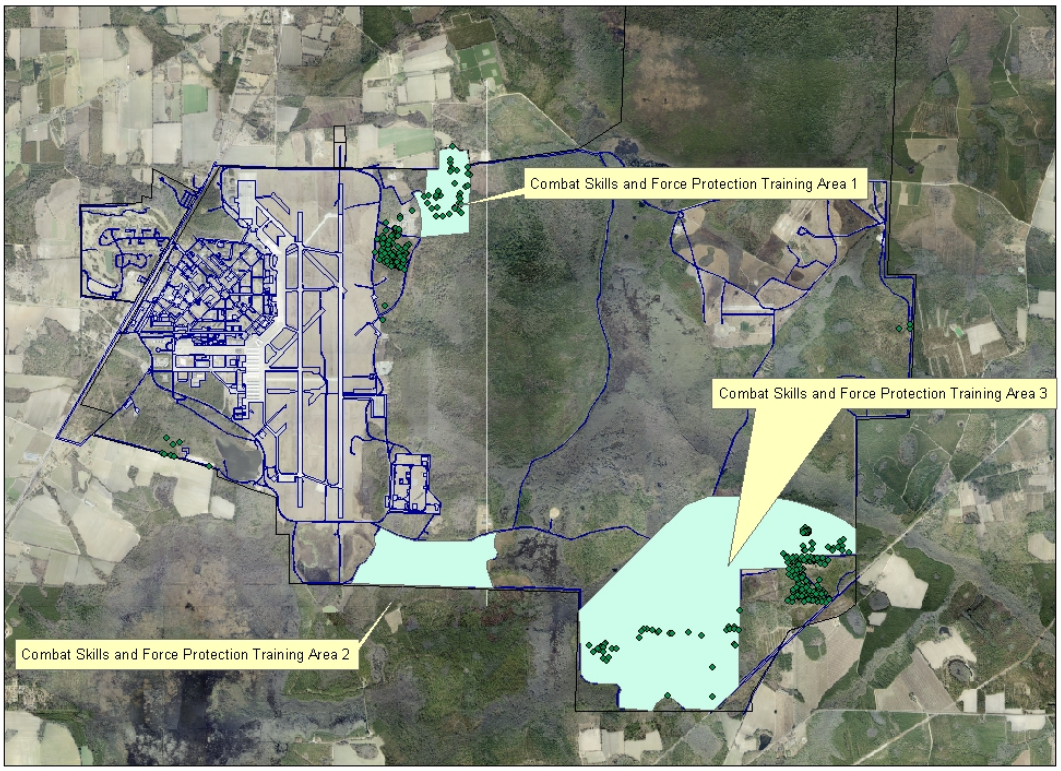

Figure 3-4
Gopher Tortoise Burrows in relation to
Proposed Training Areas at Moody AFB

Combat Skill and Force Protection Training Area 3 (Bemiss Field Area). Wildlife species in this area are similar to those that occur in the other two Combat Skill and Force Protection Training areas. However, because this site has been the focus of more intensive prescribed burning and timber management and because of site variations, there is a greater diversity of species in this area. In addition to white-tailed deer, wild turkeys, bobwhite quail, and other common wildlife species, there is a significant population of fox squirrels in this area, indicative of the current management regime and protection from harassment. Two RTE species are known to occur in this training area, the state threatened gopher tortoise and the federally threatened eastern indigo snake (Figure 3-3). The gopher tortoise population consists of over 190 burrows. The majority of these are adult burrows, but numerous subadult and juvenile burrows in the area are indicative of a vibrant and growing population. Eastern indigo snakes have been confirmed at this location, although the last verified sighting was in 1996 during surveys being conducted in support of the Bemiss Field Drop Zone. Because of the presence of gopher tortoise

burrows and other suitable winter denning sites, it is believed that this area is used year-round by indigo snakes. No other RTE species are known from this location.

RTE species do not occur at any of the other proposed training and bivouac areas. Evidence of specific species recorded at Moody AFB in proposed training areas include:

> Mammals: Opossum (*Didelphis virginiana*), raccoon (*Procyon lotor*), striped skunk (*Mephitis mephitis*), gray fox (*Urocyon cinereoargenteus*), gray squirrel (*Sciurus carolinensis*), fox squirrel (*S. niger*), eastern cottontail rabbit (*Sylvilagus floridanus*), white-tailed deer (*Odocoileus virginianus*), and various small rodents.
>
> Birds: Northern bobwhite quail (*Colinus virginianus*), red-shouldered hawk (*Buteo lineatus*), yellow-billed cuckoo (*Coccyzus americanus*), ruby-throated hummingbird (*Archilochus colubris*), woodpeckers (downy (*Picoides pubescens*), red-bellied (*Melanerpes carolinus*), flicker (*Colaptes aurates*)), American crow (*Corvus brachyrhychos*), Carolina chickadee (*Parus carolinensis*), tufted titmouse (*Parus bicolor*), brown-headed nuthatch (*Sitta pusilla*), Carolina wren (*Thryothonis ludovicianus*), blue-gray gnatcatcher (*Polioptila caerulea*), ruby-crowned kinglet (*Regulus calendula*), white-eyed (*Vireo griseus)* and red-eyed (*Vireo olivaceus*) vireos, northern parula (*Parula americana*), common grackle (*Quiscalus quiscula*), summer tanager (*Piranga rubra*), Eastern towhee (*Pipilo erythrophthalmus*), and white-throated sparrow (*Zonotrichia albicollis*).
>
> Reptiles and Amphibians: Eastern box turtle (*Terrapene carolina carolina*), eastern fence lizard (*Sceloporus undulatus*), five-lined skink (*Eumeces inexpectatus*), canebrake (timber) rattlesnake (*Crotalus horridus*), black racer (*Coluber constrictor*), indigo snake (*Drymarchon corais couperi*), little grass frog (*Pseudacris ocularis*), squirrel tree frog (*Hyla squirella*), eastern spadefoot toad (*Scaphiopus holbrooki*), gopher tortoise (*Gopherus polyphemus*), and other similar lizards, frogs, and toads.

3.7.2 Environmental Consequences

Field training activities, including convoy training, combat skills, and force protection training, have the potential to affect wildlife species both directly and indirectly. Wildlife can be impacted directly through injury, harassment, or disturbance which causes a disruption in normal activities, such as foraging or reproduction. These direct impacts can negatively affect species by increasing energetic demands as a result of fleeing from the human presence or being forced to forage outside of normal areas. Additionally, reproductive success could be hampered if the training activities prevent wildlife species from caring for young or completing other required reproductive activities.

Indirect effects include the alteration of the habitat or other physical parameters which have an effect on short-term or long-term survival and reproductive success. Examples of indirect effects that may result from field training activities include habitat destruction or alteration through the use of off-road vehicles or excessive foot traffic.

3.7.2.1 Proposed Action

Under this alternative, training would occur in a variety of habitats throughout the installation, from grassed and landscapes areas within the cantonment area to forested habitats used by a variety of native wildlife species. Anticipated environmental effects for the FTX area and each proposed training area is documented below:

FTX Area. The development of this site would result in the loss of about five acres of wildlife habitat. However, given the fact that this site was previously known to be inhabited only by common species that are found throughout Moody AFB and south Georgia, the loss of this amount of wildlife habitat is not deemed a significant loss. The site may have served as suitable habitat for the federally threatened eastern indigo snake, but given its location along the installation boundary adjacent to a rural home and developed agricultural land, it is not likely that indigo snakes used this site to any great extent. The loss of five acres of habitat in this location would not have a significant impact on indigo snakes or any other listed species.

Combat Skill and Force Protection Training Area 1 (SFG Training Area 3). Training in this area would be limited to convoy training on existing roads and trails and Combat Skills and Force Protection Training conducted in the wooded areas north and south of the unimproved road. Training of this nature currently is conducted in this location, and monitoring of wildlife species by installation personnel have noted no negative impacts on these species. Populations of white-tailed deer, eastern wild turkeys, and northern bobwhite quail have increased in this area because of habitat manipulation to improve the area for military training. Because no digging or off-road use of vehicles would be allowed in this area, there should be no impacts to gopher tortoises. Personnel would be briefed on the presence of gopher tortoises and would be instructed to avoid tortoises and their burrows when training on-site. Gopher tortoises in this area are used to humans in their environment, and intensive monitoring of these species through radio telemetry and direct observation has not reported any adverse affects as a result of military training. Therefore, there would be no significant impacts to gopher tortoises or any other wildlife species as a result of training in this area.

Combat Skill and Force Protection Training Area 2 (SFG Training Area 4). Training in this area would be limited to convoy training on existing roads and trails and Combat Skills and Force Protection Training conducted in the wooded areas, including ground disturbance through the digging of hasty fighting positions. This type of training is currently being conducted in this area and has been evaluated in other environmental documents. Monitoring of wildlife species by installation personnel have noted no negative impacts on these species. Populations of white-tailed deer, eastern wild turkeys, and northern bobwhite quail have increased in this area because of habitat manipulation to improve the area for military training. Prior to field training, personnel would be briefed on the precautions and procedures to be taken when training in areas with the potential for listed species (i.e. eastern indigo snake). Capturing, harassing, or otherwise injuring an indigo snake would be prohibited, and personnel would be instructed to halt

training and contact the Moody AFB Environmental Flight if indigo snakes are observed in the training area. With these procedures in place, there should be no significant impacts to eastern indigo snakes or any other wildlife species as a result of training in this area.

Combat Skill and Force Protection Training Area 3 (Bemiss Field Area). Training in this area would be limited to convoy training on existing roads and trails and Combat Skills and Force Protection Training conducted in the wooded areas, including ground disturbance through the digging of hasty fighting positions. This type of training is currently being conducted in this area and has been evaluated in other environmental documents, including consultations with the U.S. Fish and Wildlife Service under Section 7 of the Endangered Species Act. Monitoring of wildlife species by installation personnel have noted no negative impacts on these species. Populations of white-tailed deer, eastern wild turkeys, and northern bobwhite quail have increased in this area because of habitat manipulation to improve the area for military training. Personnel would be briefed on the presence of gopher tortoises and indigo snakes and would be instructed to avoid indigo snakes, gopher tortoises, and their burrows when training on-site. Gopher tortoises in this area are used to humans in their environment, and intensive monitoring of these species through radio telemetry and direct observation has not reported any adverse affects as a result of military training. Capturing, harassing, or otherwise injuring an indigo snake would be prohibited, and personnel would be instructed to halt training and contact the Moody AFB Environmental Flight if indigo snakes are observed in the training area. With these procedures in place, there should be no significant impacts to eastern indigo snakes or any other wildlife species as a result of training in this area.

3.7.2.2 Alternative 1

The environmental effects of this alternative would be identical to the proposed action. Therefore, there would be no significant impacts to water resources as a result of implementation of this alternative.

3.7.2.3 No Action Alternative. Under this alternative, no Civil Engineer contingency training activities would occur. Therefore, no potential for disturbance to wildlife resources would be possible, and there would be no impacts to these resources.

3.8 Cumulative Effects

3.8.1 Definition of Cumulative Effects

The Council on Environmental Quality (CEQ) implementing guidelines for NEPA require that both the direct and the cumulative effects of an action be evaluated and published. Cumulative effects (impacts) are the incremental impacts of an action when added to other past, present, and reasonably foreseeable future actions, regardless of what agency or person undertakes such other actions. In other words, an environmental assessment must determine if non-significant direct effects caused by implementation of

the proposed action or any of the alternatives would become significant if considered in concert with other actions occurring within the area of interest, defined both geographically and temporally. Actions overlapping with or in close proximity to the proposed action would be expected to have more potential for an incremental impact than those more geographically separated. Similarly, actions that coincide, even partially, in time would tend to offer a higher potential for cumulative effects.

To identify cumulative effects, the analysis needs to address two fundamental questions:

1. Does a relationship exist such that affected resource areas of the proposed action or alternatives might interact with the affected resource areas of past, present, or reasonably foreseeable actions?

2. If such a relationship exists, then does an assessment reveal any potentially significant impacts not identified when the proposed action is considered alone?

3.8.2 Scope of Cumulative Effects Analysis

The scope of the cumulative effects analysis involves both the geographic extent of the effects and the time frame in which the effects could be expected to occur, as well as a description of what resources could potentially be cumulatively affected. Of all the issues and concerns presented and analyzed in this document, the only resources with the potential to be affected cumulatively was determined to be vegetation and wildlife resources.

When addressing cumulative impacts to vegetation and wildlife resources, the geographic extent for the cumulative effects analysis are the proposed training areas in which the proposed action and alternatives have the potential to impact, primarily concentrating on past, present, and reasonably foreseeable actions on and within the boundaries of Moody AFB.

The time frame for cumulative effects analysis would center on the timing of the proposed action and would continue into the foreseeable future; additionally, actions with the potential to impact vegetation and wildlife resources that were implemented within the past four years would be included for analysis.

3.8.3 Past, Present, and Reasonably Foreseeable Actions

Numerous other activities, conducted by private and local, state, and federal government agencies, have been conducted on Moody AFB during the past two years, and more actions are expected to continue into the future. For the purposes of analysis, only those actions with the potential to directly affect vegetation and wildlife resources would be addressed.

Past and Present Actions Relevant to the Proposed Action

- *Field Training Activities, 820 SFG, Moody AFB.* In 2000, the 820th Security Forces Group was bedded down at Moody AFB. Included in this action was the use of various wooded areas through main base and Grand Bay Range as field training sites. Field training occurs year-round on the installation, and includes land navigation, force-on-force training, station training, air base defense training, driver's proficiency training, and weapons qualification and proficiency training. Up to 250 personnel from the 820 SFG participate in field training activities on Moody AFB at a given time; however, because of deployment, the number of persons currently being trained is generally much lower.

Reasonably Foreseeable Actions Relevant to the Proposed Action

- *Base Closure and Realignment Actions for 2006, Moody AFB.* Following recommendations from the Base Realignment and Closure Commission (BRAC), Moody AFB would distribute its training aircraft (T-38C and T-6A aircraft) to other Air Education and Training Command locations to consolidate training. Moody AFB would receive 48 A/OA-10 aircraft in their place. These aircraft would be based out of Moody AFB and would utilize Grand Bay Range for part of their training requirement.

- *Common Battlefield Airmen Training (CBAT), Moody AFB.* Moody AFB is being considered as a potential location for the beddown of the CBAT mission, which would include a 200-acre cantonment area to be built on the selected installation. Students in the CBAT would receive training in small unit tactics, force-on-force training, convoy training, and land navigation in addition to small arms proficiency. If this mission is bedded down at Moody AFB, all training except for small arms proficiency, would be conducted at off-base locations. An Environmental Impact Statement (EIS) is currently in-progress to address the environmental effects of this proposed action.

3.8.4 Cumulative Effects Analysis

The proposed development of the CBAT cantonment area would potentially have a significant effect on vegetation and wildlife resources at Moody AFB as approximately 200 acres of upland forest and wildlife habitat, including habitat for the federally threatened indigo snake, would be removed. None of the other identified past, present, or reasonably foreseeable future actions have been determined to cause significant effects to vegetation or wildlife resources on the installation. The beddown of the A/OA-10 aircraft at Moody AFB and the subsequent use of Grand Bay Range may preclude the use of Bemiss Field as a Combat Skills and Force Protection Training area. However, this is a logistical and scheduling constraint, and there would be no impact to either vegetation or wildlife resources as a result.

When the impacts of these past, present, and reasonably foreseeable future actions are considered cumulatively with the expected environmental impacts of the proposed action

and the alternatives, there are no expected significant cumulative impacts, primarily because of the short duration of the training proposed under this action and the small size of the proposed FTX area (five acres of disturbance). Therefore, there should not be any significant cumulative effects when the proposed action or the evaluated alternatives are considered in relation with any of these other actions.

Table 3-1 -- Predicted effects of each of the alternatives

Issues/Concerns	Proposed Action	Alternative 2	No Action Alternative
Cultural Resources	No significant effect.	No significant effect.	No significant effect.
Hazardous Materials, Pollution, and Contaminants	No significant effect.	No significant effect.	No significant effect.
Physical Resources	No significant effect.	No significant effect.	No significant effect.
Vegetation Resources	No significant effect.	No significant effect.	No significant effect.
Water Resources	No significant effect.	No significant effect.	No significant effect.
Wildlife Resources	About five acres of common south Georgia vegetation would be removed. No significant effect.	About five acres of common south Georgia vegetation would be removed. No significant effect.	No significant effect.
Cumulative Effects	No anticipated significant cumulative effects.	No anticipated significant cumulative effects.	No anticipated significant cumulative effects.

4.0 PERMITS AND REQUIRED CONSULTATIONS AND APPROVALS

4.1 National Historic Preservation Act. In accordance with Section 106 of the National Historic Preservation Act, if either the proposed action was to be implemented, the State Historic Preservation Office would have to be consulted prior to any ground disturbance.

4.2 Endangered Species Act. In accordance with Section 7 of the Endangered Species Act, the U.S. Fish and Wildlife Service must be consulted prior to implementation because the proposed action has the potential to affect, but not adversely affect, the federally listed indigo snake as a result of long-term habitat loss. This consultation would have to be completed prior to any ground disturbing activities.

4.3 NPDES Stormwater Phase II and Georgia Erosion and Sedimentation Control Act. In accordance with these regulations, an erosion and sedimentation control plan would have to be developed for the construction of the proposed FTX site and would have to address the implementation of best management practices to minimize soil erosion and sedimentation. A Notice of Intent would have to be filed with the Georgia EPD under the stormwater regulations, and a Lanier County Land Disturbing Permit would have to be obtained prior to implementation of any ground disturbance on the site.

4.4 Public Notification and Review

In accordance with 32 CFR 989 and 23 WG/JA directives, the following organizations were afforded the opportunity to review and comment on an earlier draft of this document along with the general public:

-- Lanier County Commissioners
-- Georgia State Historic Preservation Office
-- Georgia State Clearinghouse